

WHAT IS CLAIMED IS:

sub a' 1. A remote control apparatus comprising:  
reception means for receiving information  
concerning a device to be controlled;

5 validation means for validating operating  
procedures for said device to be controlled; and

transmission control means for transmitting an  
operating command to said device based on said  
operating procedures that are validated.

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2. A remote control apparatus according to claim  
1, wherein said transmission control means issues a  
request, to said device to be controlled, for  
transmission of information concerning said device.

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3. A remote control apparatus according to claim  
1, wherein said information received by said reception  
means consists of operating procedures for said device  
that is to be controlled.

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sub a2 4. A remote control apparatus according to claim  
1, further comprising:

storage means for storing operating procedures in  
consonance with a device to be controlled,

25 wherein said information received by said  
reception means constitutes identification means for a  
device to be controlled and said validation means

validates said operating procedures stored in  
consonance with said identification information for  
said device.

5           5. A remote control apparatus according to claim  
1, further comprising:

storage means for storing operating procedures in  
consonance with a type of a device that is to be  
controlled,

10           wherein said information received by said  
reception means is for a type of a device to be  
controlled and said validation means validates said  
operating procedures stored in consonance with said  
type of said device.

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6. A remote control apparatus according to claim  
1, wherein said information concerning said device that  
is to be controlled is received from said device that  
is to be controlled.

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7. A remote control apparatus according to claim  
1, wherein said information concerning said device to  
be controlled is received from a device other than said  
device that is to be controlled.

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8. A remote control apparatus according to claim  
1, wherein said reception means receives data by

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reading shape information for a specific portion of  
said device to be controlled, and said validation means  
selects a device corresponding to said shape  
information, and validates operating procedures for  
5 said device that is selected.

10 9. A remote control apparatus according to claim  
8, wherein said shape information is for an entire  
device that is to be controlled.

10. A remote control apparatus according to claim  
8, wherein said shape information is bar code attached  
to a device that is to be controlled.

15 11. A remote control apparatus according to claim  
1, wherein said reception means and transmission  
control means are employed to perform bidirectional  
communication with said device that is to be  
controlled.

20 12. A remote control apparatus according to claim  
11, wherein said reception means and said transmission  
control means are capable of using a plurality of  
communication routes.

25 13. A remote control apparatus according to claim  
11, further comprising selection means for selecting a

14. A remote control apparatus according to claim 11, further comprising selection means for selecting a second communication route while a first communication route is currently selected from among said plurality of communication routes.

16. A remote control apparatus according to claim  
15 1, further comprising storage means for storing a  
history of operations performed according to said  
operating procedures.

17. A remote control apparatus according to claim  
20 1, wherein said operating command is transmitted to a  
device other than said device that is to be controlled,  
and is transmitted through said device to said device  
to be controlled.

25           18. A remote control apparatus according to claim  
1, wherein said operating command is transmitted to a  
first device that is to be controlled, and is

transmitted to a second device that is to be controlled through said first device that is to be controlled.

19. A remote control apparatus according to claim  
5 1, wherein the status of said device that is to be controlled is received by said reception means and said operating procedures are changed according to said status.

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20. A remote system comprising:

identification means for identifying a device to be controlled by a remote control apparatus; and

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transmission control means for transmitting to said remote control apparatus information concerning a device that is identified,

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wherein said remote control apparatus transmits an operating command to said device in accordance with operating procedures based on said information that is received.

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21. A remote control system according to claim  
20, wherein said information concerning said device that is to be controlled consists of operating procedures for said device.

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22. A remote control system according to claim  
20, wherein said information concerning said device

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that is to be controlled consists of identification information, and wherein said remote control apparatus employs said operating procedures in consonance with said device stored in said remote control apparatus.

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23. A remote control system according to claim 20, wherein said information concerning said device that is to be controlled concerns a type of device that is to be controlled, and wherein said remote control apparatus employs said operating procedures in consonance with said device type stored in said remote control apparatus.

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24. A remote control system according to claim 20, wherein said identification means detects a position of said remote control apparatus, and employs said position and positions of a plurality of devices that are to be controlled by said remote control apparatus to identify a device that is to be controlled.

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25. A remote control system according to claim 20, wherein said identification means is provided for each of devices that are to be controlled by said remote control apparatus.

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26. A remote control system according to claim

20, wherein said identification means identifies an operator of said remote control apparatus, and designates operating procedures in consonance with said identity of said operator.

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27. A remote control system according to claim 20, wherein said identification means identifies a skill level of an operator of said remote control apparatus, and, in consonance with said skill level of said operator, designates functions that are to be included in operating procedures.

28. A remote control system according to claim 20, wherein each individual device that is to be controlled by said remote control apparatus includes storage means for storing a history of operations performed by said device.

sub 25 29. A remote control system according to claim 20, wherein said devices that is to be controlled is operated by referring to said history of said operations performed by said device that is stored in said storage means.

30. A remote control system according to claim 20, further comprising storage means for storing a history of operations performed by each individual

device that is to be controlled by said remote control apparatus.

31. A remote control system according to claim  
5 30, wherein said devices that are to be controlled are operated by referring to said histories of said operations performed by said devices stored in said storage means.

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10 32. A remote control apparatus comprising:  
input means for receiving an instruction;  
processing means for performing processing in  
accordance with said instruction input by said input  
means;  
15 communication means for communicating with another  
device; and  
communication control means for permitting said  
communication means to transmit an operation  
instruction, which has been input for another device by  
20 said input means, to said device to be controlled  
according to said instruction.

33. A remote control apparatus according to claim  
25 32, further comprising:  
validation means for validating operating  
procedures for a device that is to be controlled  
according to said operating instruction; and



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37. A remote control apparatus according to claim 32, wherein said communication means receives results obtained by processing said device according to said operation instruction, and said processing means processes said results.

38. A remote control apparatus according to claim  
32, wherein results obtained by said processing means  
are transmitted, to said communication means, as an  
object to be processed by said device that is to be  
5 controlled.

39. An information processing apparatus  
comprising:  
determination means for specifying a process to be  
10 performed; and  
processing means for performing said process  
specified by said determination means.

40. An information processing apparatus according  
15 to claim 39, wherein, for a determination, said  
determination means employs at least one part of a  
process that is to be executed by a locally own  
apparatus, a status of said apparatus, an instruction  
from a user, and the contents of information that is to  
20 be processed.

41. An information processing apparatus according  
to claim 39, wherein said process includes  
communication with an external device.

25 42. An information processing apparatus according  
to claim 41, wherein said process includes an

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43. An information processing apparatus according to claim 42, wherein said acquisition of information includes a transmission request submitted to said external device.

45. An information processing apparatus according to claim 41, wherein said communication includes an instruction to said external device.

46. An information processing apparatus according to claim 41, wherein said communication includes a response to a message received from said external device.

47. An information processing apparatus according to claim 46, wherein said message is a transmission request, and information requested is transmitted as said response.

48. An information processing apparatus according to claim 46, wherein said message is a request for

49. An information processing apparatus according to claim 46, wherein said message is an instruction, and results obtained according to said instruction are transmitted as said response.

50. An information processing apparatus  
comprising:  
communication means for communicating with an  
external device;  
processing means for processing information from  
said external device that is received through said  
communication means;  
acquisition means for acquiring information from  
said external device through said communication means;  
and  
control means for permitting said processing means  
to process said information acquired by said  
acquisition means.

51. An information processing apparatus according  
to claim 50, wherein said processing means is output  
means for outputting information.

52. An information processing apparatus according

to claim 50, wherein said acquisition means includes request means for issuing a transmission request to said external device, and control means for enabling reception, through said communication means, of  
5 information that is transmitted by said external device upon receipt of said transmission request.

53. An information processing apparatus according to claim 50, wherein said acquisition means acquires  
10 specific information.

54. An information processing apparatus according to claim 50, wherein said acquisition means acquires information from a specific external device.  
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55. An information processing apparatus according to claim 50, further comprising:

determination means for determining whether information should be acquired by said acquisition  
20 means,

wherein said acquisition means acquires information in accordance with results obtained by said determination means.

56. An information processing apparatus according to claim 55, further comprising:

request input means for inputting an output

request from a user,

wherein said determination means decides that information is to be acquired upon receipt of said output request.

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57. An information processing apparatus according to claim 56, wherein said request input means includes:

natural language input means for inputting information using a natural language; and

10 analysis means for analyzing said information contained in said natural language input by said natural language input means and for identifying said output request.

15 58. An information processing apparatus according to claim 55, further comprising:

identification means for identifying a status of said apparatus,

20 wherein said determination means determines that information is to be acquired in accordance with said status.

25 59. An information processing apparatus according to claim 51, wherein said output means prints information.

60. An information processing apparatus according

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61. An information processing apparatus according to claim 51, wherein said output means outputs information by voice.

63. An information processing apparatus according to claim 50, further comprising:

64. An information processing apparatus according to claim 52, wherein said transmission request is a request for a list of information.

65. An information processing apparatus according to claim 52, wherein information to be transmitted is electronic mail.

66. An information processing apparatus comprising:  
communication means for communicating with an

external device;

processing means for processing information from  
said external device that is received through said  
communication means;

5 transmission control means for transmitting to  
said external device through said communication means  
said information that is processed by said processing  
means; and

10 control means for storing in said external device  
said information that has been transmitted to said  
external device through said communication means.

15 67. An information processing apparatus according  
to claim 66, wherein said processing means is input  
means for inputting information.

20 68. An information processing apparatus according  
to claim 66, wherein said transmission control means  
comprises a request means for issuing to said external  
device a reception request for information, and  
wherein, when said reception request is accepted, said  
transmission control means transmits information that  
has been input by said input means to said external  
device through said communication means.

25 69. An information processing apparatus according  
to claim 66, wherein said transmission control means

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70. An information processing apparatus according to claim 66, wherein said transmission control means transmits information to a plurality of external devices.

72. An information processing apparatus according to claim 66, further comprising:

73. An information processing apparatus according to claim 72, further comprising:

wherein said determination means determines that a transmission should be performed in accordance with said transmission request.

74. An information processing apparatus according to claim 72, further comprising:

identification means for identifying a status,  
wherein said determination means makes a  
5 determination in accordance with said status.

75. An information processing apparatus according to claim 66, wherein said transmission control means transmits said information that has been input, in  
10 parallel to a plurality of external devices.

76. An information processing apparatus according to claim 66, wherein said information includes instruction information concerning said external  
15 device.

77. An information processing apparatus according to claim 76, wherein said instruction information includes setup instruction information for a process  
20 performed by said external device.

78. An information processing apparatus according to claim 77, wherein said process performed by said external device is an information filing process.  
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79. An information processing apparatus according to claim 77, wherein said process performed by said

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external device is an information search process.

80. An information processing apparatus according to claim 76, wherein said instruction information includes information for instructing a first external device to withdraw information from a second external device.

81. An information processing apparatus according to claim 76, wherein said instruction information includes information for instructing a first external device to transfer information to a second external device.

82. An information processing apparatus according to claim 76, wherein said information includes information for which processing is to be performed by said external device in accordance with said instruction information.

83. An information processing apparatus according to claim 76, wherein a process that is to be performed based on said instruction information is an information printing process.

84. An information processing apparatus according to claim 76, wherein a process performed based on said

instruction information is an information display process.

85. An information processing apparatus according  
5 to claim 76, wherein a process performed based on said instruction information is an information storage process.

86. An information processing apparatus according  
10 to claim 67, wherein said input means is means for reading image information.

87. An information processing apparatus according  
15 to claim 67, wherein said input means is means for forming an image from image information.

88. An information processing apparatus  
comprising:  
operating means for performing an operation;  
20 input means for inputting information;  
processing means for, based on said operation,  
processing said information input by said input means;  
output means for outputting results obtained by  
said processing means; and  
25 control means for controlling another device based  
on an operation for said device performed by said  
operation means.

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communication means for communicating with another device,

10           90. An information processing apparatus according  
to claim 88, wherein said operating means is capable of  
operating said other device even in a state where  
communication with said device is disabled, and wherein  
said control means transmits said instruction  
15 information corresponding to said operation when  
communication is enabled.

20 designation means for selecting a specific device  
from among said plurality of other devices,  
wherein said control means controls a device  
selected by said designation means.

25            92. An information processing apparatus according  
to claim 89, wherein said control means includes  
communication control means for permitting said

communication means to transmit, to said device selected by said designation means, operating information that specifies an operation that is to be performed by said operating means.

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93. An information processing apparatus according to claim 88, further comprising:

validation means for validating operating procedures for said other device; and

10 operating control means for controlling said operating means, so that processing corresponding to said operating information is to be performed in accordance with said validated operating procedures.

15 94. An information processing apparatus according to claim 93, further comprising:

storage means for storing operating procedures for another device,

20 wherein said validation means validates operating procedures stored in said storage means.

25 95. An information processing apparatus according to claim 93, wherein operating procedures for another device are received by said communication means, and are validated by said validation means.

96. An information processing apparatus according

to claim 95, wherein said communication means receives, from said device that is to be controlled, said operating procedures for said device.

5           97. An information processing apparatus according to claim 95, wherein said communication means receives, from a device other than said device that is to be controlled, said operating procedures for said device that is to be controlled.

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98. An information processing apparatus according to claim 88, further comprising:

operating control means for controlling said operating means so that operating procedures for said apparatus are employed to perform an operation corresponding to operating information that concerns said device that is to be controlled.

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99. An information processing apparatus according to claim 98, wherein said operating information is instruction information for instructing a process corresponding to said operation performed by said device to be controlled.

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25           100. An information processing apparatus according to claim 90, wherein said designation means is capable of selecting a plurality of devices that are

to be controlled at the same time.

101. An information processing apparatus  
according to claim 100, wherein said designation means  
5 is capable of selecting said apparatus as one of a  
plurality of devices that are to be controlled at the  
same time.

102. An information processing apparatus  
10 according to claim 88, further comprising:

identification means for identifying a plurality  
of devices that are to be controlled by said control  
means;

detection means for detecting functions of a  
15 plurality of devices that are to be controlled and that  
are identified by said identification means; and

activation means for activating said functions  
that are detected by said detection means.

20 103. An information processing apparatus  
according to claim 102, further comprising:

notification means for issuing an activation  
notification for said functions activated by said  
activation means.

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104. An information processing apparatus  
according to claim 103, further comprising:



requesting means for requesting that a user issue a confirmation before activation of said functions is performed by said activation means.

5           105. An information processing method comprising:  
a determination step of specifying a process to be performed by an information processing apparatus; and  
a processing step of performing said process specified at said determination step.

10           106. An information processing method according to claim 105, wherein, for a determination, at said determination step employed is at least one part of a process that is to be executed by a locally own  
15           apparatus, a status of said apparatus, an instruction from a user, and the contents of information that is to be processed.

20           107. An information processing method according to claim 105, wherein said process includes communication between an external device and said information processing apparatus.

25           108. An information processing method according to claim 107, wherein said process includes an acquisition of information from said external device.

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114. An information processing method according to claim 112, wherein said message is a request for storage, and whether or not a storage is available is transmitted as said response.

115. An information processing method according to claim 112, wherein said message is an instruction, and results obtained according to said instruction are transmitted as said response.

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116. An information processing method comprising:  
a processing step of processing information that is received from an external device through a communication unit, which is used to communicate with said external device;

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an acquisition step of acquiring information through said communication unit from said external device; and

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a control step of, at said processing step, processing said information that is acquired at said acquisition step.

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117. An information processing method according to claim 116, wherein said processing step is an output step of outputting information.

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118. An information processing method according to claim 116, wherein said acquisition step includes a request step of issuing a transmission request to said external device, and a control step of enabling reception, through said communication unit, of information that is transmitted by said external device

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upon receipt of said transmission request.

119. An information processing method according  
to claim 116, wherein specific information is acquired  
5 at said acquisition step.

120. An information processing method according  
to claim 116, wherein information is acquired from a  
specific external device at said acquisition step.  
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121. An information processing method according  
to claim 116, further comprising:

a determination step of determining whether  
information should be acquired at said acquisition  
15 step,

wherein, at said acquisition step, information is  
acquired in accordance with results obtained at said  
determination step.

122. An information processing method according  
to claim 121, further comprising:

a request input step of inputting an output  
request from a user,

wherein at said determination step it is decided  
25 that information is to be acquired upon receipt of said  
output request.

5           a natural language input step of inputting information using a natural language; and

          an analysis step of analyzing said information contained in said natural language input at said natural language input step and of identifying said output request.

an identification step of identifying a status of  
said apparatus,  
wherein at said determination step it is  
ascertained that information is to be acquired in  
accordance with said status.

125. An information processing method according  
to claim 115, wherein said output step is an  
20 information printing process.

126. An information processing method according to claim 115, wherein said output step is an information display process.

127. An information processing method according to claim 115, wherein said output step is an

information output process by voice.

128. An information processing method according  
to claim 118, wherein said transmission request  
5 includes information for designating an information  
format.

129. An information processing method according  
to claim 118, further comprising:  
10 a conversion step of changing a format for  
information received via said communication unit.

130. An information processing method according  
to claim 118, wherein said transmission request is a  
15 request for a list of information.

131. An information processing method according  
to claim 118, wherein information to be transmitted is  
electronic mail.  
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132. An information processing method comprising:  
a processing step of processing information;  
a transmission step of transmitting said  
information that has been processed at said processing  
25 step to an external device through a communication  
unit, which is used to communicate with said external  
device; and

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a control step of storing in said external device said information that has been transmitted through said communication unit to said external device.

5           133. An information processing method according to claim 132, wherein at said processing step is an input step of inputting information.

10           134. An information processing method according to claim 132, wherein said transmission control step comprises a request step of issuing to said external device a reception request for information, and wherein, when said reception request is accepted, at  
15           said transmission control step, information that has been input at said input step is transmitted to said external device through said communication unit.

20           135. An information processing method according to claim 132, wherein at said transmission control step information is transmitted to a specific external device.

25           136. An information processing method according to claim 132, wherein at said transmission control step information is transmitted to a plurality of external devices.

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140. An information processing method according to claim 138, further comprising:

an identification step of identifying a status,  
wherein, at said determination step, a  
determination is made in accordance with said status.



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146. An information processing method according to claim 142, wherein said instruction information includes information for instructing a first external

device to withdraw information from a second external device.

5 147. An information processing method according to claim 142, wherein said instruction information includes information for instructing a first external device to transfer information to a second external device.

10 148. An information processing method according to claim 142, wherein said information includes information for which processing is to be performed by said external device in accordance with said instruction information.

15 149. An information processing method according to claim 142, wherein a process that is to be performed based on said instruction information is an information printing process.

20 150. An information processing method according to claim 142, wherein a process performed based on said instruction information is an information display process.

25 151. An information processing method according to claim 142, wherein a process performed based on said

instruction information is an information storage process.

152. An information processing method according  
5 to claim 142, wherein said input step is a step of  
reading image information.

153. An information processing method according  
10 to claim 142, wherein said input step is a step of  
forming an image from image information.

154. An information processing method, for an  
information processing apparatus that has an operating  
unit for performing processing, comprising:  
15 an input step of inputting information;  
a processing step of processing, based on said  
operation, said information input at said input step;  
an output step of outputting results obtained at  
said processing step; and  
20 a control step of controlling another device based  
on an operation performed for said device by said  
operation unit.

155. An information processing method according  
25 to claim 154, further comprising:  
a communication step of communicating with another  
device,

wherein, at said control step, said communication means is permitted to transmit instruction information corresponding to an operation performed at said operating step.

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156. An information processing method according to claim 154, wherein said operating unit is capable of operating said other device even in a state where communication with said device is disabled, and wherein at said control step said instruction information corresponding to said operation is transmitted when communication is enabled.

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157. An information processing method according to claim 154, further comprising:

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a designation step of selecting a specific device from among said plurality of other devices,

wherein, at said control step, a device selected at said designation step is controlled.

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158. An information processing method according to claim 154, wherein said control step includes a communication control step of permitting said communication unit to transmit, to said device selected at said designation step, operating information that specifies an operation that is to be performed by said operating unit.

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159. An information processing method according to claim 154, further comprising:

a validation step of validating operating procedures for said other device; and

5 an operating control step of controlling said operating means, so that processing corresponding to said operating information is to be performed in accordance with said validated operating procedures.

10 160. An information processing method according to claim 159, wherein at said validation step, validated are operating procedures, which are stored in a storage unit for storing operating procedures for another device.

15 161. An information processing method according to claim 159, further comprising:

an operation procedure reception unit of receiving operating procedures for another device through said  
20 communication unit,

wherein said received operating procedures are validated by said validation means.

25 162. An information processing method according to claim 161, wherein at said communication step, said operating procedures for said device are received from said device that is to be controlled.

163. An information processing method according to claim 161, wherein at said communication step, said operating procedures for said device that is to be controlled are received from a device other than said device that is to be controlled.

164. An information processing method according to claim 154, further comprising:

an operating control step of controlling said operating unit so that operating procedures for said apparatus are employed to perform an operation corresponding to operating information that concerns said device that is to be controlled.

165. An information processing method according to claim 164, wherein said operating information is instruction information for instructing a process corresponding to said operation performed by said device to be controlled.

166. An information processing method according to claim 156, wherein at said designation step, it is possible to select a plurality of devices that are to be controlled at the same time.

167. An information processing method according to claim 166, wherein at said designation step, it is

possible to select said apparatus as one of a plurality of devices that are to be controlled at the same time.

168. An information processing method according to claim 154, further comprising:

an identification step of identifying a plurality of devices that are to be controlled at said control step;

a detection step of detecting functions of a plurality of devices that are to be controlled and that are identified at said identification step; and

an activation step of activating said functions that are detected at said detection step.

169. An information processing method according to claim 168, further comprising:

a notification step of issuing an activation notification for said functions activated at said activation step.

170. An information processing method according to claim 169, further comprising:

a requesting step of requesting that a user issue a confirmation before activation of said functions is performed at said activation step.

171. A computer-readable storage medium used to

store an information processing program for controlling a computer for processing of information, said program comprising codes for enabling said computer to perform:

- 5 a determination step of specifying a process to be performed by an information processing apparatus; and
- a processing step of performing said process specified at said determination step.

10 172. A computer-readable storage medium used to store an information processing program for controlling a computer for processing of information, said program comprising codes for enabling said computer to perform:

- 15 a processing step of processing information that is received from an external device through a communication unit, which is used to communicate with said external device;

an acquisition step of acquiring information through said communication unit from said external device; and

- 20 a control step of, at said processing step, processing said information that is acquired at said acquisition step.

25 173. A computer-readable storage medium used to store an information processing program for controlling a computer for processing of information, said program comprising codes for enabling said computer to perform:



a processing step of processing information;

a transmission step of transmitting said  
information that has been processed at said processing  
step to an external device through a communication  
5 unit, which is used to communicate with said external  
device; and

a control step of storing in said external device  
said information that has been transmitted through said  
communication unit to said external device.

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174. A computer-readable storage medium used to  
store an information processing program for controlling  
a computer for processing of information, said program  
comprising codes for enabling said computer to perform:

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an input step of inputting information;

a processing step of processing, based on said  
operation, said information input at said input step;

an output step of outputting results obtained at  
said processing step; and

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a control step of controlling another device based  
on an operation performed for said device by said  
operation unit.

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